MULTIMEDIA UNIVERSITY

STUDENT ID NO

# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 1, 2015/2016**

## MSD7333 –DATABASE SYSTEM AND SYSTEM ANALYSIS

(All sections / Groups)

21 SEPTEMBER 2015
10.00 a.m. – 12.00 p.m.
(2 Hours)

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**INSTRUCTIONS TO STUDENTS**

1. This Question paper consists of 3 pages including cover page with 6 Questions only.

2. Answer **FOUR** out of **SIX** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please print all your answers in the answer Booklet provided.

## QUESTION 1

Suppose that you are a database administrator of a pharmaceutical company. You plan to integrate a case-based reasoning (CBR) system with the existing database. Provide a proposal to justify your plan.

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**[10 marks]**

## QUESTION 2

Suppose that you are responsible to plan and implement a new relational database. Describe the database life cycle for the whole process.

**[10 marks]**

## QUESTION 3

Explain briefly each of the following concepts:

(a) Transactional replication

(b) Subscriber database

(c) Supervised learning algorithm

(d) Entity relationship data model

(e) Associative database model

**[10 marks]**

## QUESTION 4

A cross-industry standard, known as Cross-Industry Standard Process for Data Mining (CRISP-DM), was developed as a guide for fitting data mining into the general problem-solving strategy. Elaborate on any five phases of CRISP-DM.

**[10 marks]**

## QUESTION 5

There are always challenges in database management. Identify and elaborate on any five challenges in managing a knowledge-intensive database.

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**[10 marks]**

## QUESTION 6

Use SQL to create a table named TRAVELLERS. The table has attributes *PASSPORT_NO* (as a primary key), *NAME*, *NATIONALITY*, *PASSPORT_EXPIRY_DATE, IC, DOB* and *GENDER*. Populate the table with at least four records. Display the name, IC, and passport number of female Canadian or Korean travellers.

**[10 marks]**